

SEQUENCE LISTING

JC20 Rec'd PCT/PTO 14 OCT 2005

SEQ ID NO.: 1: BFA4 cDNA

ATGGTCCGGAAAAAGAACCCCTCTGAGAAACGTTGCAAGTGAAGGCGAGGGCCAGATCCTGGAGCCTATAGGTAACAGAAAGCA
5 AGGTATCTGGAAAGAACAAAGAATTCTCTGCAGATCAGATGTGAGAAATACGGATCAGAGTGATGCTGCAGAACTAAATCATAAGG
AGGAACATAGCTTGCATGTTCAAGATCCATCTTCTAGCAGTAAGAAGGACTTGAAAAGCGCAGTTCTGAGTGAGAAGGCTGGCTTCA
ATTATGAAAGCCCCAGTAAGGGAGGAACTTCCCTCCTTTCCGCATGATGAGGTGACAGACAGAAATATGTTGGCTTTCTCATTTC
CAGCTGCTGGGGAGTCTGTGAGCCCTTGAAGTCTCCGCAAAGAGCAGAGGCAGATGACCCCTCAAGATATGGCCCTGCACCCCTCAG
GGGACTCACTGGAGACAAAGGAAGATCAGAAGATGTACCAAAGGCTACAGAGGAAACAGGGCAAGCACAGAGTGGTCAAGCCAATT
10 GTCAAGGTTTGAGCCAGTTTCACTGGCCCTCAAAAAACCCACAAGTGCCCTTCACTGAGGGGTGTAAGACTGAATAAATCCAAAACTG
ACTTACTGGTGAATGACAACCCAGACCCGGCACCTCTGTCTCCAGAGCTTCAGGACTTTAAATGCAATATCTGTGGATATGGTTACT
ACGGCAACGACCCACAGATCTGATTAAAGCACTTCCGAAAGTATCACTTAGGACTGCATAACCGCACCAGGCAAGATGCTGAGCTGG
ACAGCAAAATCTTGGCCCTTCATAACATGGTGCAGTTCAGCCATTCCAAAGACTTCAGAAGGTCAACCGTTCTGTGTTTTCTGGTG
TGCTGCAGGACATCAATTCTCAAGGCTGTTTTACTAAATGGGACCTATGATGTGCAGGTGACTTCAGGTGGAACATTCATTGGCA
15 TTGACCGGAAAAACACAGATTGCCAAGGGAACCAAGTATTTCCGCTGTAAATTCCTGCAATTTCACTTATATGGGCAACTCATCCA
CCGAATTAGAACAACTTTTCTTCAGACTCACCCAAACAAATAAAGCTTCTCTCCCTCCTCTGAGGTTGCAAAACCTTCAGAGA
AAAACCTCTAACAGTCCATCCCTGCACCTTCAATCCAGTGATTCCTGGAGACTTGGGAAAATGGCAGGACAAGATAACAGTCAAAGCAG
GAGATGACACTCCTGTTGGGTACTCAGTGCCCAATAAGCCCTCGATTCTCTAGACAAAATGGTACAGAGGCCACCACTTACTACT
GGTGTAATTTTGTAGTTTCACTGTGAGTCACTAGCTCACTTAAATGCTAGAACATTATGGCAAGCAGCAGCGAGCAGTGACGT
20 CAGGCGGCCCTTAATCCAGAGTTAAATGATAAGCTTTCCAGGGGCTCTGTCAATTAATCAGAATGATCTAGCCAAAAGTTTCAAGAGGAG
AGACAATGACCAAGACAGACAAGAGCTCGAGTGGGGCTAAAAAGAAAGGACTTCTCCAGCAAGGAGCCGAGGATAATATGGTAAACGA
GCTATAATTTGTCAGTTCGTGACTTCCGATATTCCAAAGCCATGGCCCTGATGTAATGTAGTGGGGCCACTTCTCCGTCATTATC
AACAGCTCCATAACATTACAAAGTGTACCAATTAACACATGTCCTTCTGCCAGAGGACTTTGCAGCCAGAAAGCACCTTGGAG
AAATTACTTATCCGTTTGCTGTAGAAAAAGTAATTTGCCACTGTGCACTCTGTCTTCTGCACTTGTCTCCTGGGGCGGCTGGAA
25 GCTCGCGAGTCAAACATCAGTGCCATCAGTGTTCACTTACCACCCCTGACGTAGATGTACTCCTCTTTCACTATGAAAGTGTGCATG
AGTCCCAAGCATCGGATGTCAAACAAGAACAAATCACTGCAAGGATCGGATGGGCAGCAGTCTGTCAAGGAAAGCAAAGAACT
CATGTACCAAAATGTGATTTTATTACCAAGTGAAGAAGAGATTTCCCGACACTACAGGAGAGCACACAGCTGCTACAAATGCCGTC
AGTGCAGTTTTACAGCTGCCGATACTCAGTCACTACTGGAGCACTTCAACACTGTTCACTGCCAGGAACAGGACATCACTACAGCCA
ACGGCGAAGAGGACGGTCATGCCATATCCACCATCAAGAGGAGGCCAAAATTGACTTCAGGGTCTACAATCTGTAACTCCAGACT
30 CTAAATGGGAGAGCCAGTTTCTGAGAGTGTGGTGAAGAGAGAGAAGCTGGAAGAGAAGGACGGGCTCAAAGAGAAAGTTTGGACCG
AGAGTTCAGTGATGACCTTCGCAATGTGACTTGGAGAGGGGAGACATCCTGCGGGGAGTCCGTCATACCCCAAGCAAGCCTGG
GGCTGCTGACCCCTGTGTCTGGCACCACCAAGAGCAGACAAAGACTCTAAGGGATAGTCCCAATGTGGAGGCCGCCATCTGGCGCGAC
CTATTATGGCTTGGCTGTGGAAACCAAGGGATTCTGCAAGGGGCGCCAGCTGGCGGAGAGAAGTCTGGGGCCCTCCCCAGCAGT
ATCCTGCATCGGGAGAAAAAAGTCCAAGGATGAATCCAGTCCCTGTTACGGAGGCGTAGAGGCTCCGGTGTTTTTTGTGCCAATT
35 GCCTGACCACAAAGACCTCTCTCTGGCGAAAGAATGCAAAATGGCGGATATGTATGCAACGCGTGTGGCCCTTACCAGAAGCTTCACT
CGACTCCCAGGCCCTTTAAACATATTAAACAAAAAACCGTGAGCAGATTATTAGGAGGAGAACAAAGAAAGCGCCTTAACCCAGAGG
CACTTCAGGCTGAGCAGCTCAACAAACAGCAGAGGGGCGAGCAATGAGGAGCAAGTCAATGGAAGCCCGTTAGAGAGGAGGTGAGAAG
ATCATCTAACTGAAAGTCACCAGAGAGAAATCCACTCCCCAGCCTAAGTAAATACGAAGCCAGGGTTCATTGACTAAAAGCCATT
CTGCTCAGCAGCCAGTCTGGTGCAGCCAACTCTGGATATTCACAAAAGGATGCAACCTTTGCACATTGAGATAAAAAGTCCCTCAGG
40 AAAGTACTGGAGATCCAGGAAATAGTTCACTCCGTATCTGAAGGGAAGGAAAGTTCTGAGAGAGGCACTTATAGAAAAAGTACATGA
GACCTGCGAAACACCCAAATTATTACCAACCGGAGCCCTATTGAAAGTACCAGTACCCACTTTTGGACTTCCCTTTGTACATA
ATGACTTCCAGAGTGAAGCTGATTGGCTGCGGTTCTGGAGTAAATATAAGCTCTCCGTTCTGGGAATCCGCACTACTTGAAGTACAG
TGCCTGGCCTACCAAAATCCTTGCCAAAATATGTGCCTTATCCCACTTCAATCTGCCTCCTCATTTTTCTAGCTGTTGGATCAGACA
ATGACATTCTCTAGATTGCGGATCAAGCATTCCAGACCTGGGCAACTGCAACGGTGCCTCAAGGAGAAAACGAAGGCACCAC
45 CAAATGTAAAAATGAAGGTCCCTTGAATGTAGTAAAAACAGAGAAAGTTGATAGAAGTACTCAAGATGAACCTTCAACAAATGTG
TGCAGTGTGGCATTGTCTTTCTGGATGAAGTGTATGCTTTGCATATGAGTTGCCATGGTGACAGTGGACCTTTCCAGTGCAGCA
TATGCCAGCATCTTTGACCGACAAATATGACTTCACAACACATATCCAGAGGGGCTGCATAGGAACAATGCACAAGTGGAAAAAA
ATGAAAAACCTAAAGAGTAA

SEQ ID NO.: 2: BFA4 Amino Acid Sequence

MVRKKNPPLRNVA SEGEQILEPIGTESKVS GKNKEFSADQMS ENTQSDAAELNHKEEHS LHVQDPSSS
 SKKDLKSAVLSEKAGFNYESP SKGGNFPSFPHDEV TDRNMLAFSFP AAGGVCEPLKSPQRAEADDPQDMA
 5 CTPSGDSLETKE DQKMSPKATEETGQAQSGQANCQGLSPVSVASKNPQVPSDGGVRLNKS KTDLLVNDNP
 DPAPLSPELQDFKCNICGYGYGNDPTDLIKHFRKYHLGLHNRTRQDAELDSKILALHNMVQFSHSDKFQ
 KVNRSVFSGVLQDINSSRPVLLNGTYDVQVTS GGTFIGRKT PDCQGN TKYFRCKFCNFYMGNSSTEL
 EQHFLQTHPNKIKASLPSSEVAKPSEKSNKSIPALQSSDSGDLGKWQDKITVKAGDDTPVGYSVPIKPL
 DSSRQNGTEATSYYWCKFCFSFCESSSSSLKLEHYGKQHGAVQSGGLNPELNDKLSRGSVINQNDLAKSS
 10 EGETMTKTDKSSSGAKKKDFSSKGAEDNMVTSYNCFDFRYSKSHGPDVIVVGPLL RHYYQLHNIHKCT
 IKHCPFCPRGLCSPEKHLGEITYPFACRKSNC SHCALLLHLSPGAAGSSRVKHQCHQCSFTTPD VDVLL
 FHYESVHESQASDVKQEANHLQSGDQQSVKESKEHSCTKCDFITQVEE EISRHYRRAHS CYKCRQCSFT
 AADTQSLLEHFN TVHCQE QDIT TANGEEDGHAISTIK EEPKIDFRVYNLLTPDSKMGE PVSES VVKREKL
 EEKDG LKEKVWTESSSDDL RNV TWRGADILRGSPSYTQASLG L LTPVSGTQEQT KTLRDS PNVEAAHLAR
 15 PIYGLAVETKGLFQ GAPAGGEKSGALPQQYPASGENKSKDESQSLRRRRRGSGVFCANCLTTK TSLWRKN
 ANGGYVCNACGLYQKLHSTPRPLNIIKQNGEQIIRRRTRKRLNPEALQAEQLNKQQRGSNEEQVNGSPL
 ERRSEDLHTESHQREIPLPSLSKYEAQGS LTKSHSAQQPVLSQTLDIHKRMQPLHIQIKSPQESTGDPG
 NSSSVSEGGSSSERGSPIEKYM RPAKHPNYSPPGSPIEKYQYPLFGLPFVHND FQSEADWLRFW SKYKLS
 VPGNPHYLSHVPGLPNPCQNYVPYPTFNLPPHFSAVGSDNDIPLDLAIKHSRPGPTANGASKEKTKAPPN
 20 VKNEGPLNVVKTEKVD RSTQDELSTKCVHCGIVFLDEV MYALHMSCHGDSGPFQCSICQHLCTDKYDFTT
 HIQRGLHRNNAQVEKNGKPKE

SEQ ID NO.: 3: BCY1 cDNA Sequence

ATGGCCGAGCTGCGCCTGAAGGGCAGCAGCAACACCACGGAGTGTGTTCCCGTGCCACCTCCGAGCACGTGGCCGAG
 25 ATCGTGGGCAGGCAAGGCTGCAAGATTAAGGCCTTGAGGGCCAAGACCAACACCTACATCAAGACACCGGTGAGGGGC
 GAGGAACCACTGTTTCATGGTGACAGGGCGACGGGAGGACGTGGCCACAGCCCGCGGGAATCATCTCAGCAGCGGAG
 CACTTCTCCATGATCCGTGCTCTCCCGCAACAAGTCAGGCGCCGCTTTGGTGTGGCTCCTGCTCTGCCCGGCCAGGTG
 ACCATCCGTGTGCGGGTGCCCTACCGCGTGGTGGGGCTGGTGGTGGGCCCCAAAGGGGCAACCATCAAGCGCATCCAG
 CAGCAAAACCAACACATACATTATCACACCAAGCCGTGACCGCGACCCCGTGTTCGAGATCACGGGTGCCCCAGGCAAC
 30 GTGGAGCGTGCGCGCAGGAGATCGAGACGCACATCGCGGTGCGCACTGGCAAGATCCTCGAGTACAACAATGAAAAC
 GACTTCTTGCGGGGAGCCCCGACGCAGCAATCGATAGCCGCTACTCCGACGCTGGCGGGTGCAACAGCCCGGCTGC
 AAGCCCCCTCTCCACCTTCCGGCAGAACAGCCTGGGCTGCATCGCGAGTGCAGGAGTGGACTCTGGCTTTGAGGCCCCA
 CGCCTGGGTGAGCAGGGCGGGGACTTTGGCTACGGCGGGTACCTCTTTCCGGCTATGGCGTGGGCAAGCAGGATGTG
 TACTACGCGGTGGCCGAGACTAGCCCCCGCTGTGGGCGGGCCAGGAGAACGCCACGCCACCTCCGTGCTCTTCTCC
 35 TCTGCTCCTCTCTCTCTCTCTCTCTCTCCGCCAAGGCCCGCGCTGGGCCCCCGGGCGCACACCGCTCCCTGCCACTTCC
 CGGGGACCCGAGCTGGCCGACTCCCGAGGCGCCCCCGGGAGAGCCGCTCCAGGGCTTCTCTAACTTGGTGGGGGC
 GGCCTGCGGAGCCCCCGCGCGGGCGGGGATTGCATGGTCTGCTTTGAGAGCGAAGTGACTGCCGCCCTTGTGCCCTGC
 GGACACAACCTGTTCTGCATGGAGTGTGCAGTACGCATCTGCGAGAGGACGGACCCAGAGTGTCCCGTCTGCCACATC
 ACAGCCGCGCAAGCCATCCGAATATTCTCTCTAA

40

SEQ ID NO.: 4: BCY1 Amino Acid Sequence

MAELRLKGSS NTTECVPVPT SEHVAEIVGR QGCKIKALRA KTNTYIKTPV RGEVPVFMVT GRREDVATAR
 REIISAAEHF SMIRASRNKS GAAPGVAPAL PGQVTIRVRV PYRVVGLVVG PKGATIKRIQ QQTNTYIITP
 45 SRDRDPVFEI TGAPGNVERA REEIEITHIAV RTGKILEYNN ENDFLAGSPD AAIDSRYS DA WRVHQPGCKP
 LSTFRQNSLG CIGECVDSG FEAPRLGEQG GDFGYGGYLF PGYGVGKQDV YYGVAETSPP LWAGQENATP
 TSVLFSSASS SSSSSAKARA GPPGAHRSPA TSAGPELAGL PRRPPGEPLQ GFSKLGGGGL RSPGGGRDCM
 VCFESEVTAA LVPCGHNLF MECAVRICER TDPECPVCHI TAAQAIRIFS

SEQ ID NO.: 5: BFA5 Nucleotide Sequence

ATGACAAAGAGGAAGAAGACCATCAACCTTAATATACAAGACGCCCAGAAGAGGACTGCTCTACTACTGGGC
 CTGTGTCAATGGCCATGAGGAAGTAGTAACATTTCTGGTAGACAGAAAGTGCCAGCTTGACGTCTTGATG
 GCGAACACAGGACACCTCTGATGAAGGCTCTACAATGCCATCAGGAGGCTTGTGCAAATATTCTGATAGAT
 55 TCTGGTGCCGATATAAATCTCGTAGATGTGTATGGCAACATGGCTCTCCATTATGCTGTTTATAGTGAGAT
 TTTGTGAGTGGTGGCAAACTGCTGTCCCATGGTGCAGTCATCGAAGTGCAACAAGGCTAGCCTCACAC
 CACTTTTACTATCCATAACGAAAAGAAGTGAGCAAATTTGTGGAATTTTGTGATAAAAAATGCAATGCG

AATGCAGTTAATAAGTATAAATGCACAGCCCTCATGCTTGCTGTATGTCATGGATCATCAGAGATAGTTGG
CATGCTTCTTCAGCAAAATGTTGACGTCTTTGCTGCAGATATATGTGGAGTAACTGCAGAACATTATGCTG
TTACTTGTGGATTTTCATCACATTTCATGAACAATAATGGAATATATACGAAAATTATCTAAAAATCATCAA
AATACCAATCCAGAAGGAACATCTGCAGGAACACCTGATGAGGCTGCACCCTTGGCGGAAAGAACACCTGACACGG
5 CACAGCTGAAAGCTTGGTGGAAAAAACACCTGATGAGGCTGCATCCTTGGTGGAGGGAACATCTGACAAAATTCAA
CTGAAAGCTTGGTGGAAAAAACACCTGATGAGGCTGCATCCTTGGTGGAGGGAACATCTGACAAAATTCAA
TGTTTGGAGAAAGCGACATCTGGAAAGTTCGAACAGTCAGCAGAAAGAACACCTAGGGAATTACGAGTCC
TGCAAAAGAAACATCTGAGAAATTTACGTGGCCAGCAAAAGGAAGACCTAGGAAGATCGCATGGGAGAAAA
AAGAAGACACACCTAGGGAATTATGAGTCCCGCAAAAGAAACATCTGAGAAATTTACGTGGGCAGCAAAAA
10 GGAAGACCTAGGAAGATCGCATGGGAGAAAAAGAAACACCTGTAAAGACTGGATGCGTGGCAAGAGTAAC
ATCTAATAAAACTAAAGTTTTGGAAAAAGGAAGATCTAAGATGATTGCATGTCCTACAAAAGAATCATCTA
CAAAAGCAAGTGCCAATGATCAGAGGTTCCCATCAGAATCCAAACAAGAGGAAGATGAAGAATATTCTTGT
GATTCTCGGAGTCTCTTTGAGAGTTCTGCAAAGATTCAAGTGTGTATACCTGAGTCTATATATCAAAAAGT
AATGGAGATAAATAGAGAAGTAGAAGAGCCTCCTAAGAAGCCATCTGCCTTCAAGCCTGCCATTGAAATGC
15 AAAACTCTGTTCCAAATAAAGCCTTTGAATTGAAGAATGAACAAACATTGAGAGCAGATCCGATGTTCCCA
CCAGAATCCAAACAAAAGGACTATGAAGAAAATTCTTGGGATTCTGAGAGTCTCTGTGAGACTGTTTCACA
GAAGGATGTGTGTTTACCCAAGGCTACACATCAAAAAGAAATAGATAAAATAAATGGAAAATTAGAAGAGT
CTCCTAATAAAGATGGTCTTCTGAAGGCTACCTGCGGAATGAAAGTTTCTATTCCAATAAAGCCTTAGAA
TTGAAGGACATGCAAACTTTCAAAGCGGAGCCTCCGGGAAGCCATCTGCCTTCGAGCCTGCCACTGAAAT
20 GCAAAAGTCTGTCCCAAATAAAGCCTTTGGAATTGAAAAATGAACAAACATGGAGAGCAGATGAGATACTCC
CATCAGAATCCAAACAAAAGGACTATGAAGAAAATTCTTGGGATACTGAGAGTCTCTGTGAGACTGTTTCA
CAGAAGGATGTGTTTTACCCAAGGCTCGCATCAAAAAGAAATAGATAAAATAAATGGAAAATTAGAAGG
GTCTCCTGTTAAAGATGGTCTTCTGAAGGCTAAGTGCAGGAATGAAAGTTTCTATTCCAATAAAGCCTTAG
AATTGATGGACATGCAAACTTTCAAAGCAGAGCCTCCCGAGAAGCCATCTGCCTTCGAGCCTGCCATTGAA
25 ATGCAAAAGTCTGTTCCAAATAAAGCCTTTGGAATTGAAGAATGAACAAACATTGAGAGCAGATGAGATACT
CCCATCAGAATCCAAACAAAAGGACTATGAAGAAAATTCTTGGGATTCTGAGAGTCTCTGTGAGACTGTTT
CACAGAAGGATGTGTGTTTACCCAAGGCTACACATCAAAAAGAAATAGATAAAATAAATGGAAAATTAGAA
GAGTCTCCTGATAATGATGGTTTTCTGAAGGCTCCCTGCAGAATGAAAGTTTCTATTCCAATAAAGCCTT
AGAATTGATGGACATGCAAACTTTCAAAGCAGAGCCTCCCGAGAAGCCATCTGCCTTCGAGCCTGCCATTG
30 AAATGCAAAAGTCTGTTCCAAATAAAGCCTTTGGAATTGAAGAATGAACAAACATTGAGAGCAGATCAGATG
TTCCCTTCAGAATCAAAACAAAAGAGGTTGAAGAAAATTCTTGGGATTCTGAGAGTCTCCGTGAGACTGT
TTCACAGAAGGATGTGTGTGTACCCAAGGCTACACATCAAAAAGAAATGGATAAAATAAGTGGAAAATTAG
AAGATTCAACTAGCCTATCAAAAATCTTGGATACAGTTTATTCTTGTGAAAGAGCAAGGGAACTTCAAAAA
GATCACTGTGAACAACGTACAGGAAAAATGGAACAAATGAAAAAGAAGTTTTGTGTACTGAAAAAGAACT
35 GTCAGAAGCAAAAGAAATAAATCACAGTTAGAGAACC AAAAGTTAAATGGGAACAAGAGCTCTGCAGTG
TGAGATTGACTTTAAACCAAGAAGAAGAGAAGAGAAATGCCGATATATTAAATGAAAAATTAGGGAA
GAATTAGGAAGAATCGAAGAGCAGCATAGGAAAGAGTTAGAAGTGAACAACAACCTTGAACAGGCTCTCAG
AATACAAGATATAGAATTGAAGAGTGTAGAAAGTAATTTGAATCAGGTTTCTCACACTCATGAAAATGAAA
ATTATCTCTTACATGAAAATTGCATGTTGAAAAAGGAAATTGCCATGCTAAAATGGAATAGCCACACTG
40 AAACACCAATACCAGGAAAAGGAAAATAAATACTTTGAGGACATTAAAGATTTTAAAGAAAAGAATGCTGA
ACTTCAGATGACCCTAAAATGAAAGAGGAATCATTAATAAAGGGCATCTCAATATAGTGGGCAGCTTA
AAGTTCTGATAGCTGAGAACACAATGCTCACTTCTAAATTGAAGGAAAAACAAGACAAAGAAATACTAGAG
GCAGAAATTGAATCACACCATCCTAGACTGGCTTCTGCTGTACAAGACCATGATCAAATTGTGACATCAAG
AAAAAGTCAAGAACCTGCTTTCCACATTGCAGGAGATGCTTGTGTTGCAAAGAAAAATGAATGTTGATGTGA
45 GTAGTACGATATATAACAATGAGGTGCTCCATCAACCCTTTCTGAAGCTCAAAGGAAATCCAAAAGCCTA
AAAATTAATCTCAATTATGCAGGAGATGCTCTAAGAGAAAATACATTGGTTTTCAGAACATGCACAAAGAGA
CCAACGTGAAACACAGTGTCAAATGAAGGAAGCTGAACACATGTATCAAAACGAACAAGATAATGTGAACA
AACACACTGAACAGCAGGAGTCTCTAGATCAGAAATTATTTCAACTACAAAGCAAAAATATGTGGCTTCAA
CAGCAATTAGTTTCATGCACATAAGAAAGCTGACAAACAAAGCAAGATAACAATTGATATTCTTTCTTGA
50 GAGGAAAATGCAACATCATCTCTTAAAAGAGAAAAATGAGGAGATATTTAATTACAATAACCATTTAAAAA
ACCGTATATATCAATATGAAAAGAGAAAGCAGAAACAGAAAACCTCATGA

SEQ ID NO.: 6: BFA5 Amino Acid Sequence

MTKRKKTINLNIQDAQKRTALHWACVNGHEEVVTFVLDRKCQLDVL DGEHRTPLMKALQCHQEACANILIDSGADINL
VDVYGNMALHYAVYSEILSVVAKLLSHGAVIEVHNKASLTPLLLSITKRSEQIVEFLLIKNNANAVNKKYKTALMLA
VCHGSSEIVGMLLQQNVDFVAADICGVTAEHYA VTCGFHHIHEQIMEYIRKLSKNHQNTNPEGTSAGTPDEAAPLAER
TPDTAESLVEKTPDEAAPLVERTPDTAESLVEKTPDEAASLVEGTSDKIQCLEKATSGKFEQSAEETPREITSPAKET
5 SEKFTWPAKGRPRKIAWEKKEDTPREIMSPAKETSEKFTWAAKGRPRKIAWEKKETPVKTGCVARVTSNKT KVLEKGR
SKMIACPTKESSTKASANDQRFPSSESKQEEDDEEYSCDSRSLFESSAKIQVCIPESIQKVM EINREVEEPPKKPSAFK
PAIEMQNSVPNKAFELKNEQTLRADPMFPPE SKQKDYEENSWDSESLCETVSQKDVCLPKATHQKEIDKINGKLEESP
NKDGLLKATCGMKVSIPTKALELKDMQTFKAEP PGKPSAFEPATEMOKSVPNKALELKNEQTLRADEILPSESKQKDY
10 EENSWDTESLCETVSQKDVCLPKAAHQKEIDKINGKLEGS PVKDGLLKANCGMKVSIPTKALELMDMQTFKAEPPEKP
SAFEPAIEMQKSVPNKALELKNEQTLRADEILPSESKQKDYESSWDSESLCETVSQKDVCLPKATHQKEIDKINGKL
EESPDNDGFLKAPCRMKVSIPTKALELMDMQTFKAEPPEKPSAFEP A IEMQKSVPNKALELKNEQTLRADQMFPSESK
QKKVEENSWDSESLRETVSQKDVCPKATHQKEMDKISGKLEDSTSLSKI LDTVHSCERARELQKDHCEQRTGKMEQM
KKKFCVLKKKLSEAKEIKSQLENQKVKEQELCSVRLTLNQEE EKRRNADILNEKIREELGRIEEQHRKELEVKQOLE
QALRIQDIELKSVESNLNQVSH THENENYLLHENCMLKKEIAMLKLEIATLKHQYQEKENKYFEDIKILKEKNAELQM
15 TLKLKEESLTKRASQYSQGLKVLIAENTMLTSKLKEKQDKEILEAEIESHH PRLASAVQDHDQIVTSRKSQEPAFHIA
GDACLQRKMNVDSSTIYNNEVLHQPLSEAQRKSKSLKINL NYAGDALRENTLVSEHAQRDQRETQCMKEAEHMYQN
EQDNV NKHTEQQESLDQKLFQLQSKNMWLQQQLVHAHKADN KSKITIDIHFLERKMQHLLKEKNEEIFNYNNHLKN
RIYQYEKEKAETENS